Resolution No.: 16-1268

Introduced:

February 2, 2010

Adopted:

February 23, 2010

# COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND

By: Council President at the Request of the County Executive

**SUBJECT:** 

Amendment to the FY09-14 Capital Improvements Program and Supplemental

Appropriation #10-S10-CMCG-5 to the FY10 Capital Budget

Montgomery County Government

Department of Transportation

Traffic Signal System Modernization (No. 500704), \$1,000,000

## **Background**

- 1. Section 307 of the Montgomery County Charter provides that any supplemental appropriation shall be recommended by the County Executive who shall specify the source of funds to finance it. The Council shall hold a public hearing on each proposed supplemental appropriation after at least one week's notice. A supplemental appropriation that would comply with, avail the County of, or put into effect a grant or a Federal, State, or County law or regulation, or one that is approved after January 1 of any fiscal year, requires an affirmative vote of five Councilmembers. A supplemental appropriation for any other purpose that is approved before January 1 of any fiscal year requires an affirmative vote of six Councilmembers. The Council may, in a single action, approve more than one supplemental appropriation. The Executive may disapprove or reduce a supplemental appropriation, and the Council may reapprove the appropriation, as if it were an item in the annual budget.
- 2. Section 302 of the Montgomery County Charter provides that the Council may amend an approved capital improvements program at any time by an affirmative vote of no fewer than six members of the Council.
- 3. The County Executive recommends the following capital project appropriation acceleration:

Project	Project	Cost		Source
<u>Name</u>	<u>Number</u>	<u>Element</u>	<u>Amount</u>	of Funds
Traffic Signal System		Site Improvements	•	
Modernization	500704	& Utilities	\$1,000,000	G.O. Bonds
TOTAL			\$1,000,000	G.O. Bonds

4. This increase is needed due to the November 2009 failure of the existing aged traffic signal control system which is reliant on dated technology and urgently requires upgrading. Funds will be used to accelerate this modernization effort by two years so we can more expeditiously upgrade and replace the system. The recommended amendment is consistent with the criteria for amending the CIP because the project is needed to address a safety concern.

- 5. The County Executive has requested an amendment to the FY09-14 Capital Improvements Program (CIP) and a supplemental appropriation in the amount of \$1,000,000 for the Traffic Signal System Modernization (No. 500704) and specifies that the source of funds will be G.O. Bonds.
- 6. Notice of public hearing was given and a public hearing was held on February 23, 2010.

## **Action**

The County Council for Montgomery County, Maryland, approves the following action:

The FY09-14 Capital Improvements Program of the Montgomery County Government is amended as reflected on the attached project description form and a supplemental appropriation is approved as follows:

Project	Project	Cost		Source
Name	<u>Number</u>	<u>Element</u>	<u>Amount</u>	<u>of Funds</u>
Traffic Signal System Modernization	500704	Site Improvements & Utilities	£1 000 000	C O Panda
Modernization	300704	& Ounties	\$1,000,000	G.O. Bonds
TOTAL			\$1,000,000	G.O. Bonds

This is a correct copy of Council action.

Linda M. Lauer, Clerk of the Council

### Traffic Signal System Modernization -- No. 500704

Category Subcategory Administering Agency Planning Area Transportation
Traffic Improvements
Transportation
Countywide

Date Last Modified Required Adequate Public Facility

Relocation Impact
Status

January 14, 2010 No.

No None.

Preliminary Design Stage

**EXPENDITURE SCHEDULE (\$000)** 

Cost Element	Total	Thru FY08	Rem. FY08	Total 6 Years	FY09	FY10	FY11	FY12	FY13	FY14	Beyond 6 Years
Planning, Design, and Supervision	5,731	904	1,539	3,288	548	548	548	548	548	548	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	29,289	51	0	25,197	2,652	3,652	5,266	4,980	4,502	4,145	4,041
Construction	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	35,020	955	1,539	28,485	3,200	4,200	5,814	5,528	5,050	4,693	4,041

FUNDING SCHEDULE (\$000)

					<del> (+</del> )						
Current Revenue: General	1,625	355	1,270	0	0	0	0	0	0	0	0
Federal Aid	269	0	269	0	0	0	0	0	0	0	0
G.O. Bonds	7,673	600	0	7,073	856	1,353	410	1,117	1,459	1,878	0
Recordation Tax Premium	13,325	0	0	13,325	2,344	2,847	3,081	2,281	1,660	1,112	0
State Aid	12,128	0	0	8,087	0	0	2,323	2,130	1,931	1,703	4,041
Total	35.020	955	1.539	28,485	3,200	4,200	5,814	5,528	5,050	4,693	4,041

### DESCRIPTION

This project provided for Phase I which consisted of requirements development, systems engineering, and testing to modernize the County's traffic signal system. The addition of Phase II entails acquisition and implementation of a state-of-the-art replacement of the current central traffic signal control system. Key elements of the modernization include system central hardware and software and communications system cable plant re-configuration.

Anticipated phases of this project include: Phase I - FY07-08. Phase II - FY09-14 - implementation and quality assurance.

#### COST CHANGE

FY10 supplemental of \$1,000,000. Funding increase is needed to deploy controllers, communication equipment, and other hardware associated with the acceleration of this project resulting from the November 2009 failure of the existing system. Reduced State aid programmed in FY09-10.

#### JUSTIFICATION

The existing traffic signal control system, though it has been highly reliable, is an aging system reliant on dated technology. Central and field communications devices are obsolete and problematic to maintain. As the technologies employed in the advanced transportation management system (ATMS) have advanced, it has become increasingly difficult to interface with the existing traffic signal control system (COMTRAC). Because of the limited functionality of the COMTRAC, the system is not able to take advantage of the capabilities of the current generation of local intersection controllers. These capabilities provide a greater level of flexibility to manage traffic demands.

The following reports focus on the condition of the current traffic signal control system and document the need to begin the process of system modernization:

White Paper on the Status and Future of the Traffic Signal System in Montgomery County, Maryland, March 2001; and Traffic Signal Replacement White Paper, January 2002. The following new reports have been developed in Phase I: Concept of Operations, Revision 1.0 February 2007; Traffic Signal System Modernization (TSSM) Requirements, Draft Revision F, May 2007. These two reports further existing systems analysis and replacement systems functional requirements development. Working in conjunction with the Department of Technology Services (DTS), a comprehensive communications master plan is underway to review the existing communications subsystem and development of state-of-the-art communication systems architecture.

### OTHER

Phase I Status (As of August 2007)

Concept of Operations - 100% complete/configuration control

System Requirements - 100% complete/configuration control

Communications Master Plan - 65% complete

Field Inventory - 90% complete

Risk Analyses and Contingency Planning - 5% complete

Cost Estimate and Implementation Plan - 25% complete

### FISCAL NOTE

The County's traffic signal system supports over 800 traffic signal locations, of which more than 550 belong to the State but are maintained by the County on a reimbursement basis. The State aid displayed in the funding schedule for FY09-10 has been eliminated due to State fiscal constraints.

APPROPRIATION AND EXPENDITURE DATA			COORDINATION Traffic Signals Project	MAP
Date First Appropriation	FY07	(\$000)	Advanced Transportation Management	
First Cost Estimate Current Scope	FY09	34,020	System  Maryland State Highway Administration	
Last FY's Cost Estimate		34,020	Department of Technology Services	77 124 100
Appropriation Request	FY10	3,200		
Supplemental Appropriation Req	uest	1,000		L KONA AL
Transfer		0		107
Cumulative Appropriation		5,694		233 97
Expenditures / Encumbrances		2,223		
Unencumbered Balance		3,471		
Partial Closeout Thru	FY07	0		199 195
New Partial Closeout	FY08	0		90 0 1 2 3 miles
Total Partial Closeout		0		

## Traffic Signal System Modernization -- No. 500704 (continued)

Based on Phase I findings, Phase II (full implementation of the system) is added to the project. The total project cost for the new system, which includes replacement of the existing functionality and addition of expanded capabilities is \$44M. The expenditure display has been updated to reflect a six-year implementation scenario. The expenditures displayed in FY09-14 (\$31.5M) do not include those costs of the total \$44M system estimate that are associated with the project team's recommendations that will be implemented/expended directly by the Maryland State Highway Administration.

Operating Budget Impacts are expected as a result of this project and will be identified as the project continues to develop.

### OTHER DISCLOSURES

- The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.